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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/573,471

03/24/2006

Toru Takenaka

62533.00042

9357

32294

7590

05/07/2010

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14TH FLOOR
VIENNA, VA 22182-6212

EXAMINER

TRAN, KHOI H

ART UNIT

PAPER NUMBER

3664

NOTIFICATION DATE

DELIVERY MODE

05/07/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPGENERALTYC@SSD.COM
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| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/573,471 | Applicant(s) TAKENAKA ET AL. | |
| | Examiner McDieunel Marc | Art Unit 3664 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/24/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>03/08/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-7 are pending.
2. Applicant is given TREE MONTHS or NINETY DAYS, whichever is longer, from the mailing date of this communication to correct the deficiency(ies). THE PROVISIONS OF 37 CFR 1.136 DO NOT APPLY TO THE TIME SPECIFIED IN THIS ACTION.
3. The rejection to claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Takenaka et al. (U.S. 6920374) is withdrawn in view of new ground of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

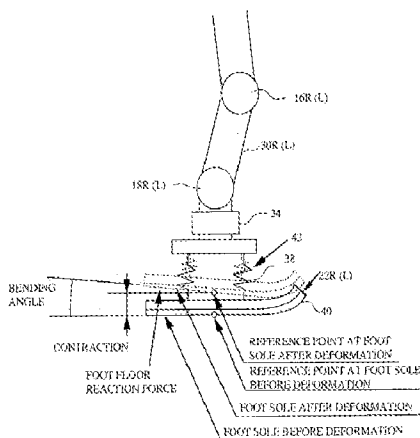
A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Takenaka et al. (US 20030125839 A1).

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6. As per claim 1, Takenaka et al. (US 20030125839 A1) teaches leg type mobile robot (see figs. 1 and 2) comprising: an body (see fig. 1, being considered as having a body); legs each



connected to the body via a first joint (see fig. 2, elements 18(L, R) and 16(L, R) being taken as first joint); and feet each connected to an end part of the leg via a second joint (see fig. 2, elements 18(L, R) and 22(L, R) being taken as second joint), wherein the foot includes at least one foot portion, which has a ground area to be grounded on a floor surface at the bottom thereof (see fig. 2, element 40,

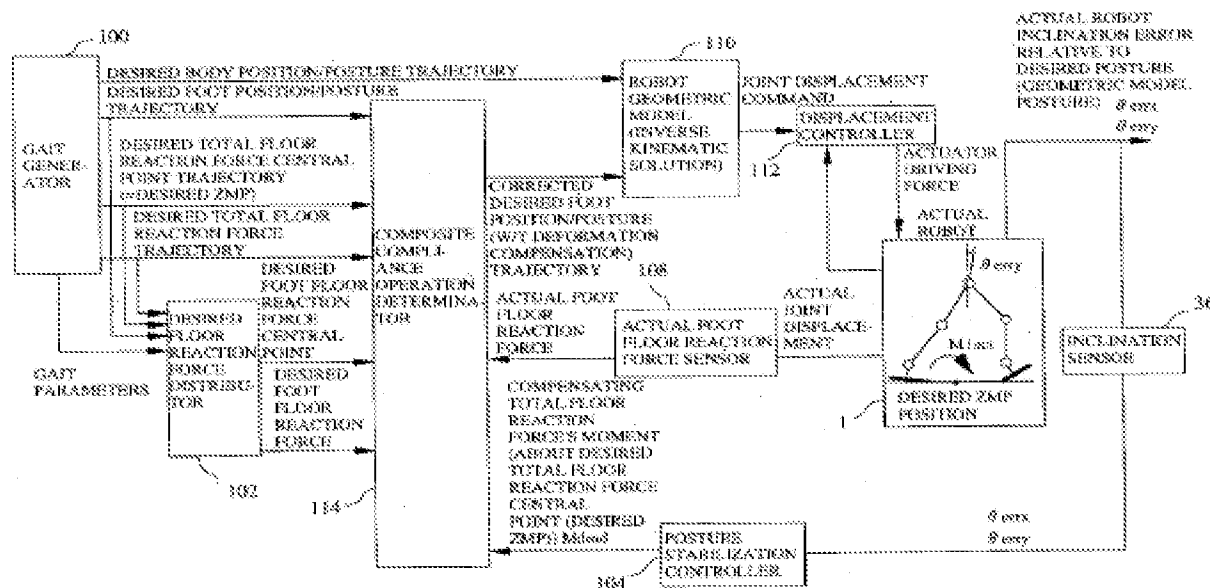
particularly the food sole), and a floor reaction force detector for detecting floor reaction force acting from a floor surface through the foot portion (see fig. 4, element 108, fig. 2, particularly the "foot floor reaction force" and section [0138], again particularly "an actual foot floor reaction force detector"), and wherein the center of the second joint is offset against the position in a plane view (see fig. 2, which is an explanatory side view showing the structure of the foot of a biped robot), the position is the position where the distance to the remotest point of at least one ground area becomes minimum (see section [0005], and fig. 2, wherein the tip of the foot has been considered as touching minimum distance in a forward motion), and the center of the floor reaction force detector (see fig. 4, element 108, fig. 2, particularly the "foot floor reaction force" and section [0138], again particularly "an actual foot floor reaction force detector"), is closer to the position than the center of the ankle joint in a plane view (see fig. 2, particularly the center point on the sole).

As per claim 2, Takenaka et al. teaches leg type mobile robot wherein the center of the floor reaction force detector is offset to a rear direction with

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respect to the position (see abs, fig. 4, element 108, fig. 2, particularly the "foot floor reaction force", and section [0138], again particularly "an actual foot floor reaction force detector" and

FIG. 4



section [0079], wherein the rear direction has been interpreted as the bending angle, contraction of the foot's rear).

As per claims 3 and 7, Takenaka et al. teaches leg type mobile robot wherein the center of the floor reaction force detector (see abs, fig. 4, element 108, fig. 2, particularly the "foot floor reaction force", and section [0138], again particularly "an actual foot floor reaction force detector" is positioned on a line segment connecting the position and the center of the second joint (see figs. 1 and 2, elements 18(L, R) and 22(L, R) being taken as second joint as noted above).

As per claim 4, Takenaka et al. teaches leg type mobile robot wherein 5 the center of the floor reaction force detector is offset to a rear direction in a center side of the leg type mobile robot with respect to the position (see abs, fig. 4, element 108, fig. 2, particularly the "foot floor reaction force", and section [0138], again particularly "an actual foot floor reaction force

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detector" and col. section [0079], wherein the rear direction has been interpreted as the bending angle, contraction of the foot's rear).

As per claim 5, Takenaka et al. teaches leg type mobile robot wherein I0 the center of the floor reaction force detector is located on the perpendicular taken down from the center of the second joint to the line segment extended from the position to a rear direction (see abs, fig. 4, element 108, according to picture representation of element 1, the food and the last joint remain perpendicular, fig. 2, particularly the "foot floor reaction force", and section [0138], again particularly "an actual foot floor reaction force detector" and section [0079], wherein the rear direction has been interpreted as the bending angle, contraction of the foot's rear; note that the center point under the sole remains perpendicular with respect to element 22(L, R).

As per claim 6, Takenaka et al. teaches leg type mobile robot wherein the center of the floor reaction force detector is located on the perpendicular taken down from the center of the second joint to the line segment extended from the position to a center of the leg type mobile robot (see abs, fig. 4, element 108, according to picture representation of element 1, the food and the last joint remain perpendicular, fig. 2, particularly the "foot floor reaction force", and section [0138], again particularly "an actual foot floor reaction force detector" and section [0079], wherein the rear direction has been interpreted as the bending angle, contraction of the foot's rear; note that the center point under the sole remains perpendicular with respect to element 22(L, R).

Response to Arguments

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7. As the reference not teaching "offset against a position ... whose distance to a remotest point of at least one ground area becomes minimum" (see Takenaka's et al., section [0274], as to having ground area has been interpreted broadly with respect to the walking distance from predetermined departure to arrival);

As the reference not teaching "a center of the floor reaction force detector (see Takenaka's et al. fig. 4, element 108, fig. 2, particularly the "foot floor reaction force" and section [0138], again particularly "an actual foot floor reaction force detector") is closer to the position than to the center of the second joint in a plane view" (see Takenaka's et al. .fig. 2, which is an explanatory side view showing the structure of the foot of a biped robot).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to McDieunel Marc whose telephone number is (571) 272-6964. The examiner can normally be reached on M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/McDieunel Marc/

Examiner, Art Unit 3664

/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664